

AIR QUALITY PERMIT

Issued to:	Decker Coal Company	Permit: #1435-05
	P.O. Box 12	Administrative Amendment (AA) Request
	Decker, MT 59025-0012	Received: 11/09/08
		Department Decision on AA: 04/23/08
		Permit Final:
		AFS: 003-0004

An air quality permit, with conditions, is hereby granted to Decker Coal Company (Decker) pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

The Decker mine is a surface coal mine located about 2 miles north of Decker, Montana, which includes the West, North, and East Decker mining areas. The mine permit areas encompass all or part of the following areas: Sections 27, 28, 29, 32, 33, and 34 of Township 8 South, Range 40 East; Sections 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24 and 28 of Township 9 South, Range 40 East; and Sections 7, 8, 17, 18, and 19 of Township 9 South, Range 41 East, in Big Horn County, Montana.

B. Current Permit Action

On November 9, 2007, the Department of Environmental Quality (Department) received a request from Decker to amend Permit #1435-04 based on recommendations from a Department compliance inspection at the facility on May 10, 2007. The changes describe current dust control methods used on the Primary and Secondary Crushers and the Conveyor Transfer/Discharge Points. In addition, the emission inventory was amended to reflect more detail of the open storage of coal. The general open storage calculation is now divided into open storage of unprocessed coal, and open storage of processed coal.

Section II: Conditions and Limitations

A. Emission Limitations

1. Maximum annual coal production shall be limited to 16 million tons per year (TPY). Any increase above this level may require a permit alteration (ARM 17.8.749).
2. Decker shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any process or fugitive emission source that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (40 CFR Part 60, Subpart Y, ARM 17.8.308, ARM 17.8.304, and ARM 17.8.340).
3. Decker shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308 and ARM 17.8.752).

4. Decker shall treat all unpaved portions of the haul roads, access roads, and the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.3 (ARM 17.8.752).
5. The following list contains the required emission control technologies and techniques (ARM 17.8.749).
 - a. Truck Dumps - Maintaining full traps and using dust deflector plates to direct dust back into the traps.
 - b. Primary and Secondary Crushers - Conveyor belt skirting, FOG system, and Type 16D American Air Filter Dust Collectors. The FOG system uses compressed air and water to create a mist for dust control. The air filter dust collector, on the tail of conveyor belt #2 is used on an as needed basis.
 - c. Coal Conveyors - Enclosed on three sides with the bottom partially open (retail sales yard conveyors not included).
 - d. Conveyor Transfer/Discharge Points – Conveyor belts #1, #2, and #3: Conveyor belt skirting and a FOG system which is only used in above-freezing weather on conveyor belts #2, and #3. Conveyor belts #4, #5, and #6: Conveyor belt skirting. Conveyor belt #5: Type 16D American Air Filter Dust Collector.
 - e. Coal Storage - Enclosed silo storage (two 13,500-ton capacity at West Decker, four 15,000-ton capacity at East Decker) for crushed coal; open stockpile for uncrushed coal with contouring and watering as necessary.
 - f. Haul and Access Roads - Application of chemical stabilization and/or watering as necessary, with on-going grading to remove loose debris.
 - g. Overburden and Coal Removal - Minimize fall distance.
 - h. Overburden and Coal Blasting - Conduct in such a manner as to prevent overshooting and to minimize the area to be blasted.
 - i. Disturbed Areas - Minimize area of disturbance and prompt re-vegetation.
6. Decker shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements as required by 40 CFR 60, Subpart Y - Standards of Performance for Coal Preparation Plants (ARM 17.8.340 and 40 CFR 60, Subpart Y).

B. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
2. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. Decker shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. Decker shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
3. All records compiled in accordance with this permit must be maintained by Decker as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

D. Ambient Monitoring Requirements

Decker shall operate an ambient monitoring network as described in Attachment 1 of this permit. The monitoring plan will be periodically reviewed by the Department and revised if necessary (ARM 17.8.749).

Section III: General Conditions

- A. Inspection – Decker shall allow the Department’s representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if Decker fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Decker of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement action as specified in Section 75-2-401, *et seq.*, MCA.

- E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Decker may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board
- H. Construction Commencement – Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).

ATTACHMENT 1
AMBIENT AIR MONITORING PLAN
DECKER COAL COMPANY
Permit #1435-05

1. This ambient air monitoring plan is required by air quality Permit #1435-05 which applies to the Decker coal mining operation near Decker, MT. The ambient air monitoring plan may be modified by the Department. All requirements of this plan are considered conditions of the permit.
2. Decker shall operate and maintain five air monitoring sites in the vicinity of the mine and facilities. The exact locations of the monitoring sites must be approved by the Department and meet all the siting requirements contained in the MT Quality Assurance Manual including revisions, the EPA Quality Assurance Manual including revisions, and 40 CFR Parts 53 and 58, or any other requirements specified by the Department.
3. Decker shall continue air monitoring following issuance of this permit. The air monitoring data will be reviewed by the Department and the Department will determine if continued monitoring or additional monitoring is warranted. The Department may require continued air monitoring to track long-term impacts of emissions from the facility or require additional ambient air monitoring or analyses if any changes take place in regard to quality and/or quantity of emissions or the area of impact from the emissions.
4. Decker shall monitor the following parameters at the sites and frequencies described in the table below:

AIRS # & Site Name	UTM Coordinates	Parameter	Frequency
30-003-0046 Decker West Met	Zone 13 N 4991140 E 356950	Wind Speed & Direction, Sigma Theta, Temperature	Continuous
30-003-0022 Niner Ranch #3 North Decker Mine	Zone 13 N 4994130 E 354440	PM ₁₀ ¹ Local Conditions: 85101 Standard Conditions: 81102	Every 6 th Day
30-003-0017 Holmes Ranch #7 East of East Pit	Zone 13 N 4989900 E 363500	PM ₁₀ Local Conditions: 85101 Standard Conditions: 81102	Every 6 th Day
30-003-0014 E.Decker Office #4	Zone 13 N 4991400 E 359200	PM ₁₀ Local Conditions: 85101 Standard Conditions: 81102	Every 6 th Day
30-003-0011 W.Decker Loop #1	Zone 13 N 4990300 E 357300	PM ₁₀ Reporting PM ₁₀ Collocated ² Local Conditions: 85101 Standard Conditions: 81102	Every 6 th Day Every 6 th Day
¹ PM ₁₀ = particulate matter less than 10 microns. ² The requirement for a collocated PM ₁₀ sampler may be waived if the monitor operator operates a collocated PM ₁₀ sampler at another site.			

Trace metal analyses of sample filters will not be required at this time; however, the Department may require these analyses in the future.

5. Data recovery (DR) for all parameters shall be at least 80%, computed on a quarterly and annual basis. The Department may require continued monitoring if this condition is not met. The data recovery shall be calculated using the following equation(s), as applicable:

$$\text{Manual Methods \% DR} = \left[\frac{\text{total number of valid samples collected}}{\text{total number of samples scheduled}} \right] \times 100$$

or

$$\text{Automated Methods \% DR} = \left[\frac{\text{total number of hours possible} - \text{hours lost to QA/QC checks} - \text{hours lost to downtime}}{\text{total number of hours possible}} \right] \times 100$$

6. Any ambient air monitoring changes proposed by Decker must be approved, in writing, by the Department.
7. Decker shall utilize air monitoring and quality assurance procedures which are equal to or exceed the requirements described in the MT Quality Assurance Manual including revisions, the EPA Quality Assurance Manual including revisions, 40 CFR Parts 53 and 58, and any other requirements specified by the Department.
8. Decker shall submit quarterly data reports within 45 days after the end of the calendar quarter and an annual data report within 90 days after the end of the calendar year. The annual report may be substituted for the fourth quarter report if all information in item 9 below is included in the annual report.
9. The quarterly report shall consist of a narrative data summary and a submittal of all data points in EPA-AIRS record format. The data shall be submitted in compact disc (CD) format or 3½" diskettes in IBM-compatible format. The narrative data summary shall include:
 - a. A topographic map of appropriate scale with UTM coordinates and a true north arrow showing the air monitoring site locations in relation to the mine and facilities and the general area;
 - b. A hard copy of the individual data points;
 - c. The quarterly and monthly means for PM₁₀ and wind speed;
 - d. The first and second highest 24-hour concentrations for PM₁₀;
 - e. The quarterly and monthly wind roses;
 - f. A summary of the data collection efficiency;
 - g. A summary of the reasons for missing data;
 - h. A precision and accuracy (audit) summary;
 - i. A summary of any ambient air standard exceedances; and
 - j. Calibration information.
10. The annual data report shall consist of a narrative data summary containing:
 - a. A topographic map of appropriate scale with UTM coordinates and a true north arrow showing the air monitoring site locations in relation to the mine and facilities and the general area;
 - b. A pollution trend analysis;
 - c. The annual means for PM₁₀ and wind speed;

- d. The first and second highest 24-hour concentrations for PM₁₀;
 - e. The annual wind rose;
 - f. An annual summary of data collection efficiency;
 - g. An annual summary of precision and accuracy (audit) data;
 - h. An annual summary of any ambient standard exceedance; and
 - i. Recommendations for future monitoring.
11. The Department may audit, or may require Decker to contract with an independent firm to audit, the air monitoring network, the laboratory performing associated analyses, and any data handling procedures at unspecified times. On the basis of the audits and subsequent reports, the Department may recommend or require changes in the air monitoring network and associated activities in order to improve precision, accuracy, and data completeness.

Permit Analysis
Decker Coal Company
Permit #1435-05

I. Introduction/Process Description

A. Permitted Equipment

The mine operations at the Decker Coal Company (Decker) include the following:

- Centralized coal processing and handling systems including truck dump, crushers, conveyors, storage barn and train loadout (separate systems located at West and East Decker)
- Auxiliary equipment includes a dragline, trucks, shovels, scrapers, drills, dozers, loaders, etc., as applicable

The retail sales yard at West Decker includes the following:

- A crusher, screen, several conveyors, and appropriate storage silos and stockpiles

B. Source Description

The Decker mine is an open pit surface coal operation located about 2 miles north of Decker, Montana. The West and North Decker mine areas are along the west side of the Tongue River Reservoir at its southern end, while the East Decker area is along the east side of the reservoir. The mine permit areas encompass all or part of the following areas: Sections 27, 28, 29, 32, 33, and 34 of Township 8 South, Range 40 East; Sections 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24 and 28 of Township 9 South, Range 40 East; and Sections 7, 8, 17, 18, and 19 of Township 9 South, Range 41 East, in Big Horn County. The mine uses standard surface mining and reclamation techniques and equipment as described below. The facilities (separate facilities located at East and West Decker) include truck dumps, crushers (primary and secondary), conveyors, silo storage, and rail loadouts.

Overburden removal begins with drilling and blasting to facilitate digging and is accomplished using scrapers, front-end loaders, shovels, or draglines. All overburden is currently back-filled in mined pits to build the reclaimed surface. Some scoria is also processed for on-site road surfacing. Coal is drilled and blasted and then removed by scrapers, backhoe, front-end loaders, or shovels. The coal is processed and blended in one of two plants prior to shipment.

All mined-out pits are backfilled during the course of mining. The approved reclaimed surface is constructed and the available soil material is spread over the area as approved by the mining permit. Reclamation activities consist of preparing a seed bed and either seeding or transplanting the approved mixture of grasses, shrubs, forbs, and trees.

Decker has established a retail coal sales area within the existing Decker Coal Mine Permitted Facilities Area. Activities include crushing, sizing, stockpiling, loading, weighing, and selling coal to the general public.

C. Permit History

Air quality **Permit #1435-00** was issued on October 23, 1980, for the West Decker operation. **Permit #1505** was issued on January 9, 1981, for the East Decker operation. Decker began mining in the area in the early 1970s.

Permit #1435-01 was issued on February 5, 1996, to update, consolidate, and replace Permits #1435-00 and #1505. The coal production limit under the consolidated permit was 16-million tons per year (TPY) compared to a total of 16.4-million TPY under the separate permits.

Permit #1435-02 was issued on March 31, 2000, for the installation and operation of a retail coal sales yard. The alteration included the installation and operation of a crusher, screen, several conveyors, and appropriate storage silos and stockpiles. The retail sales yard was subject to 40 CFR 60, Subpart Y. The conditions relevant to the retail coal sales operation were added in Section II.F-J of the permit. Also, the rule references were updated.

On April 9, 2001, the Department of Environmental Quality (Department) received a permit application for the installation and operation of four or five temporary, diesel-fired generators at the Decker mine. Decker maintained that these generators were necessary because the high cost of electricity has the potential for significant negative effects on their mine operations. The generators would not operate for a period of more than 2 years and their operation was not expected to last for extended periods of time, but rather only on an interim basis while Decker pursued a more economical supply of power.

The leased generators were to only be used on an interim basis, when commercial power was too expensive and affecting mining operations. Additionally, the installation of these generators qualified as a "temporary source" under the Prevention of Significant Deterioration (PSD) permitting program because the permit limited the operation of these generators to a period of less than 2 years, or until a suitable power contract was obtained, whichever occurs first. Therefore, Decker did not need to comply with Administrative Rules of Montana (ARM) 17.8.804, 17.8.820, 17.8.822, and 17.8.824. Even though the portable generators were considered temporary, the Department required compliance with Best Available Control Technology (BACT) and public notice requirements. Therefore, compliance with ARM 17.8.819 and 17.8.826 was ensured. In addition, Decker was responsible for complying with all applicable ambient air quality standards. **Permit #1435-03** replaced Permit #1435-02.

On November 18, 2004, the Department received a request from Decker to relax ambient air monitoring requirements for their operations. On December 8, 2004, the Department responded to this request by indicating that a conditional discontinuation of ambient monitoring from collocated samplers located at Site #5/6 (30-003-0021) may be appropriate pending an increase in mining and/or reclamation activities in the East Pits. On December 27, 2004, the Department received a response from Decker stating that renewed regular coal mining activities in the East Pits, which currently are not being used as a coal resource, would be an appropriate trigger to resume monitoring from collocated samplers located at Site #5/6, since these samplers would appropriately monitor emissions from this area of operations.

In addition, the letter received from Decker on December 27, 2004, questioned the continued need for collocated sampling. In some circumstances, where the company contracted to conduct the sampling operates other collocated and similar type samplers

(i.e. Hi-Volume or Low-Volume samplers) at other locations within Montana, the Department may consider the discontinuation of collocated sampling. However, in this case, the Department was not aware of any other collocated sampling sites in Montana operated by Inter-Mountain Laboratories (IML), Decker's contracted sampling company. Therefore, the Department determined that Decker must continue to operate collocated samplers at the site.

On January 19, 2005, the Department sent Decker a letter requesting additional information regarding a proposed new collocated sampling site. In response to the Department's letter, on February 23, 2005, the Department received information from Decker proposing the new collocated sampling site at existing sampling Site #7 (30-003-0017).

After Department review of the available monitoring data, the Department determined that instead of using Site #7 for the collocated replacement station, the new collocated station should be located at Site #1 (30-003-0011). Sites #1 and #7 have roughly the same maximum values and annual averages for the last number of years; however, the Department believes that Site #7 values may have been influenced by the nearby gravel road, resulting in values that are less representative of Decker mining operations.

This permit action conditionally discontinued the requirement for collocated sampling at Site #5/6 (30-003-0021) pending renewed coal mining activities on a regular basis in the East Pits. In addition, this permit action added collocated sampling requirements at Site #1 (30-003-0011).

Finally, on May 31, 2001, Decker was issued a final air quality permit for the installation and operation of up to five diesel-fired generators for use when commercial power is deemed too expensive. According to company personnel, to date, the units have never been installed or operated at the Decker mine. Therefore, in accordance with the requirements contained in the Administrative Rules of Montana (ARM) 17.8.762, the Department removed the temporary portable generators and all associated limits and conditions from the permit under this permit action. **Permit #1435-04** replaced Permit #1435-03.

D. Current Permit Action

On November 9, 2007, the Department Decker to amend Permit #1435-04 based on recommendations from a Department compliance inspection at the facility on May 10, 2007. The changes describe current dust control methods used on the Primary and Secondary Crushers and the Conveyor Transfer/Discharge Points. In addition, the emission inventory was amended to reflect more detail of the open storage of coal. Instead of a general open storage calculation, it is divided into open storage of unprocessed coal, and open storage of processed coal. **Permit #1435-05** replaces Permit #1435-04.

E. Additional Information

Additional information, such as applicable rules and regulations, BACT determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial quotations of some applicable rules and regulations that apply to the operation. The complete rules are stated in the ARM and are available, upon request, from the Department. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 - General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emissions of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Decker shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation, or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

B. ARM 17.8, Subchapter 2 - Ambient Air Quality, including, but not limited to the following:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide

7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

Decker must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 - Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of 20% for all fugitive emissions sources and that reasonable precautions be taken to control emissions of airborne particulate. (2) Under this rule, Decker shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.
4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule. This rule applies to the portable generators. Decker shall not burn liquid or solid fuels containing sulfur in excess of 1 pound (lb) per million British Thermal Units (BTU) fired.
6. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). Decker is considered an NSPS affected facility under 40 CFR Part 60, and is subject to the requirements of the following subparts:
 - a. Subpart A - General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below.
 - b. Subpart Y - Standards of Performance for Coal Preparation Plants.
7. ARM 17.8.341 Standard of Performance of Hazardous Air Pollutants. Decker shall comply with the standards and provisions of 40 CFR Part 61, as appropriate.

D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. The current permit action is an administrative amendment and does not require an application or application fee.
2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter, or use any air contaminant sources that have the Potential to Emit (PTE) greater than 25 tons per year (TPY) of any pollutant. Decker has a PTE greater than 25 TPY of particulate matter (PM), particulate matter with an aerodynamic diameter of less than 10 microns (PM₁₀), oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), and volatile organic compounds (VOCs); therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. The current permit action is an administrative amendment under the provisions of ARM 17.8.764 and does not require a permit application. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. The current permit action is an administrative amendment; therefore, a legal publication was not required.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Decker of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8,

Subchapters 8, 9, and 10.

14. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the Federal Clean Air Act (FCAA) that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because it is not a listed source and the source's PTE is below 250 TPY of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:
 - a. PTE > 100 tons/year of any pollutant;
 - b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. Sources with the PTE > 70 tons/year of PM₁₀ in a serious PM₁₀ non-attainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #1435-05 for Decker, the following conclusions were made:
 - a. The facility's PTE is less than 100 tons/year for any pollutant, excluding fugitive emission sources.
 - b. The facility's PTE is less than 10 tons/year for any single HAP and less than 25 tons/ year of a combination of all HAPs, excluding fugitive emission sources.
 - c. This source is not located in a serious PM₁₀ non-attainment area.

- d. This facility is subject to 40 CFR Part 60, Subpart A (General Provisions) and Subpart Y (Coal Preparation Plants).
- e. This facility is not subject to any current NESHAP standards.
- f. This source is not a Title IV affected source, nor a solid waste combustion unit.
- g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that Decker is a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Decker will be required to obtain a Title V Operating Permit.

III. BACT Determination

A BACT determination is required for each new or altered source. Decker shall install on the new or altered source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized. The current permit action is an administrative therefore, a BACT analysis and determination was not required for the current permit action.

IV. Emission Inventory

Table I. Estimated Particulate Matter (PM) Emissions – TPY

Activity	Process Rate ¹	Units	PM Emission Factor	%Control	TPY
Topsoil removal	1,380,000	bcy	0.38 lb/bcy	0	262.2
Overburden drilling	34,800	hole	1.5 lb/hole	0	26.1
Overburden blasting	300	blast	37.5 lb/blast	0	5.6
OB removal - DL ²	17,405,400	bcy ⁵	0.03 lb/bcy	0	261.1
OB removal - T/S ³	12,350,000	bcy	0.015 lb/bcy	0	92.6
Wind erosion	760	acre	0.38 tons/acre-yr	0	288.8
Coal drilling	36,000	hole	0.22 lb/hole	0	4.0
Coal blasting	335	blast	26.25 lb/blast	0	4.4
Coal removal - T/S	16,000,000	ton	0.0021 lb/ton	0	16.8
Coal dump	16,000,000	ton	0.01275 lb/ton	0	10.2
Open storage – Unprocessed Coal	15	acre	760 lbs/acre-yr	0	5.7
Open Storage – Processed Coal	3	Acre	17.74 tons/acre-yr	0	53.2
Primary crusher	16,000,000	ton	0.02 lb/ton	95	8.0
Secondary crusher	16,000,000	ton	0.06 lb/ton	95	4.0
Conveyor	16,000,000	ton	0.02 lb/ton	95	8.0
Haul road	730,900	vmt	10 lb/vmt	85	548.2
Access road	139,000	vmt	3 lb/vmt	85	31.2
Diesel exhaust	3,983,400	gal	30.1 lbs/1000 gal	0	60.0
Gasoline exhaust	213,900	gal	6.06 lbs/1000 gal	0	0.6
Retail Sales Yard Crushing ⁴	350	Ton/hr	0.02 lb/ton	50	15.33
Retail Sales Yard Screening ⁴	350	Ton/hr	0.01 lb/ton	50	7.67
Retail Sales Yard Conveying ⁴	350	Ton/hr	0.02 lb/ton	50	15.33
Retail Sales Yard Stockpiles/Wastepiles ⁴	0.2	acres	17.74 ton/acre-yr	0	3.55
Total Particulate Matter Emissions					1732.58

¹ The process rates are estimated by extrapolating up from the reported 1994 data using a ratio of the 1994 coal production rate to the permitted production rate of 16-million tons per year.

² DL = dragline

³ T/S = truck/shovel

⁴ Emission calculations for the retail sales yard are on file with the Department.

⁵ bcy = “bank” cubic yards

⁶ vmt = vehicle miles traveled

Table II. Estimated Gaseous Emissions^a

Air Pollutant	Tons/Year ^b
Oxides of Nitrogen	701
Sulfur Dioxide	77
Carbon Monoxide	1,151
Volatile Organic Compounds	56

^a Table II does not include estimated emissions from diesel generators.

^b Estimated total emissions from vehicle exhaust (diesel and gasoline) and explosives detonations. Estimated diesel and gasoline usage is shown in the Table I. Explosive (ANFO) usage is estimated at 14,400 tons per year. Emission factors are from AP-42.

V. Existing Air Quality

The Decker mine is a surface coal mine located about 2 miles north of Decker, Montana, which includes the West, North, and East Decker mining areas. The mine permit areas encompass all or part of the following areas: Sections 27, 28, 29, 32, 33, and 34 of Township 8 South, Range 40 East; Sections 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, and 28 of Township 9 South, Range 40 East; and Sections 7, 8, 17, 18, and 19 of Township 9 South, Range 41 East in Big Horn County. The temporary generators would be located in the West ½ of the Southwest ¼ of Section 10, Township 9 South, Range 40 East in Big Horn County.

Decker has monitored particulate matter levels around the mine throughout the life of the operation.

This data is on file with the Department. Attachment 1 describes the current air monitoring plan, which consists of five sites that monitor concentrations of PM₁₀ and a meteorological site. The annual PM₁₀ means over the last 6 years have ranged from 10 to 34 µg/m³. These concentrations ranged from about 20 to 68% of the annual standard of 50 µg/m³. During the same time period, the maximum 24-hour concentrations have ranged from 27 to 139 µg/m³. Thus, these maximum 24-hour concentrations have ranged from about 18 to 93% of the 24-hour standard of 150 µg/m³.

VI. Ambient Air Quality Impact Analysis

Big Horn County is designated as unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) and the Montana Ambient Air Quality Standards (MAAQS). The current permit action does not result in any increase in actual or potential emissions from Decker operations; therefore, the current permit action will not result in additional ambient air quality impacts.

VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department has conducted a private property taking and damaging assessment and has determined there are no taking or damaging implications.

VIII. Environmental Assessment

The current permit action is an administrative amendment and does not require the preparation of an environmental assessment.

Permit Analysis prepared by: Julie Merkel
Date: March 25, 2008